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In re Application of

Barclay

Application Number

07/439093

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Paper No. #24

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#24

US005130242A

United States Patent [19]

Barclay

[11] Patent Number: 5,130,242

[45] Date of Patent: Jul. 14, 1992

[54] PROCESS FOR THE HETEROTROPHIC PRODUCTION OF MICROBIAL PRODUCTS WITH HIGH CONCENTRATIONS OF OMEGA-3 HIGHLY UNSATURATED FATTY ACIDS

[75] Inventor: William R. Barclay, Boulder, Colo.

[73] Assignee: Phycotech, Inc., Boulder, Colo.

[21] Appl. No.: 580,778

[22] Filed: Sep. 11, 1990

Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 439,093, Nov. 17, 1989, abandoned, which is a continuation-in-part of Ser. No. 241,410, Sep. 7, 1988, abandoned.

[51] Int. Cl.³ C12P 7/64; C12N 1/00; A23B 7/10; A23D 9/00

[52] U.S. Cl. 435/134; 435/243; 435/946; 426/49; 426/53; 426/601

[58] Field of Search 435/134, 243, 946; 426/49, 53, 601

[56] References Cited

U.S. PATENT DOCUMENTS

4,874,629 10/1989 Chang et al. 426/417
4,938,984 7/1990 Traitler et al. 426/601

FOREIGN PATENT DOCUMENTS

8900606 1/1989 World Int. Prop. O. .

OTHER PUBLICATIONS

Tornabene et al., *Sterols, Aliphatic Hydrocarbons, and Fatty Acids of a Nonphotosynthetic Diatom, Nitzschia alba*, *Lipids*, 9/4:279(1974).

Harrington and Holz, *The Monoenoic and Docosahexaenoic Fatty Acids of a Heterotrophic Dinoflagellate*, *Biochim. Biophys. Acta*, 164:137(1968).

Haskins et al., *Steroids and the Stimulation of Sexual Reproduction of a Species of Pythium*, *Canadian J. Microbiology*, 10:187(1964).

Orcutt and Patterson, *Sterol, Fatty Acid and Elemental Composition of Diatoms Grown in Chemically Defined Media*, *Comp. Biochem. Physiol.*, 50B:579(1975).

Emerson, R. (1950) *Ann. Rev. Micro.* 4:169-200.

Erwin, J. (1973) In *Lipids and Biomembranes of Eukar-*

yotic Microorganisms, J. Erwin (ed.), Academic Press, New York, pp. 41-143.

Findlay, R. H. et al. (1986) in *The Biology of Marine Fungi*, S. T. Moss (ed.), Cambridge University Press, London, pp. 91-103.

Fuller, M. S. et al. (1964) *Mycologia* 56:745-756.

Goldstein, S. (1963) *Am. J. Bot.* 50:271-279.

Pohl, P. and Zurheide, F. (1979) In *Marine Algae in Pharmaceutical Science*, H. Hoppe et al., (eds.), W. de Gruyter, Berlin, pp. 473-524.

Ryther, J. H. (1983) In *Solar Energy Research Inst. Aquatic Species Program Rev. Proc. Mar. 1983 Principal Investigators Meeting*, SERI/CP-231-1946, pp. 79-88.

Schneider, J. (1976) In *Marine Ecology*, vol. 3, Part 1, Cultivation, O. Kinne (ed), Wiley Interscience, London, pp. 339-345.

Sparrow, F. K. (1960) *Aquatic Phycomycetes*, University of Michigan Press, Ann Arbor, pp. 37-38.

Weete, J. D. (1980) In *Lipid Biochemistry of Fungi and Other Organisms*, Chapter 3, Plenum Press, New York.

Wassef, M. (1977) *Adv. Lipid Res.* 15:159-232.

Yamada, H. et al. (1987) *J. Am. Oil Chemists Soc.* 64:1254.

Miller, C. E. (1967) *Mycologiz* 59:524-527.

Ellenbogen et al., *Comp. Biochem. Physiol.*, vol. 29, pp. 805-811, 1969.

Kyle, JAOCS, vol. 64, No. 9, p. 1251, 1987.

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[57]

ABSTRACT

A process for the heterotrophic or predominantly heterotrophic production of whole-celled or extracted microbial products with a high concentration of omega-3 highly unsaturated fatty acids, producible in an aerobic culture under controlled conditions using biologically pure cultures of heterotrophic single-celled fungi microorganisms of the order Thraustochytriales. The harvested whole-cell microbial product can be added to processed foods as a nutritional supplement, or to fish and animal feeds to enhance the omega-3 highly unsaturated fatty acid content of products produced from these animals. The lipids containing these fatty acids can also be extracted and used in nutritional, pharmaceutical and industrial applications.

10 Claims, 9 Drawing Sheets